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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/679,794 | 10/06/2003 | Michael L. Babala | 1-24754 | 3701 |

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EXAMINER

CHAPMAN JR, JOHN E

ART UNIT PAPER NUMBER

2856

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,794

Applicant(s)

BABALA, MICHAEL L.

Examiner

John E Chapman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 14-17 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

1. The drawings are objected to because block elements 10, 26, 28, 48, 50, 68, 70, 86, 88 and 94 are not labelled. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The abstract of the disclosure is objected to because it is not directed to the claimed invention. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: In paragraph 1, the current status of the application should be given. Appropriate correction is required.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Condne et al.

Condne discloses an inertial sensor comprising a sense element 20 mounted on a base member 16, and a plurality of signal conditioning circuits 36 and 40 connected to the sense element.

Regarding claim 7, high frequency angular acceleration is a “first range of acceleration change” and low frequency angular acceleration is a “second range of acceleration change.”

7. Claims 2-4 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Condne et al. in view of Greiff et al.

The only difference between the claimed invention and the prior art consists in mounting the sense element on a silicon base member. Greiff discloses a micromechanical angular accelerometer comprising a silicon base member. It would have been obvious to one having ordinary skill in the art to mount the sense element on a silicon base member in order to provide a micromechanical angular accelerometer.

Regarding claims 3 and 11, Greiff suggests forming the sensing circuitry integrally with the sense element (col. 2, lines 11-13). Accordingly, it would have been obvious to one having ordinary skill in the art to provide the signal conditioning circuits integral with the silicon base member and sense element.

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8. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Condne in view of Greiff as applied to claims 2, 4 and 12 above, and further in view of Flach et al.

Flash teaches that it is known in the art to form an application specific integrated circuit 14 on a silicon wafer 10. Accordingly, it would have been obvious to one having ordinary skill in the art to include the signal conditioning circuits integral within an application specific integrated circuit formed on a silicon wafer.

9. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Broillet et al.

Broillet discloses an inertial sensor comprising a sense element 31 mounted on a base member (namely, a rotary machine), and a plurality of signal conditioning circuits 33 and 34 connected to the sense element.

Regarding claim 7, low frequency vibrations comprise a “first range of acceleration change” and high frequency vibrations comprise a “second range of acceleration change.”

10. Claims 1, 5, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Roantree et al.

Roantree discloses an inertial sensor comprising a sense element 72 mounted on a base member (e.g., a space vehicle), and a plurality of signal conditioning circuits 106 and 112 connected to the sense element.

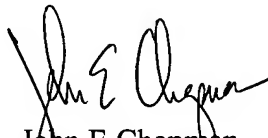
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Regarding claim 9, the output of signal conditioning circuit 106 is proportional to the low frequency component of the angular rate, and the output of signal conditioning circuit 112 is proportional to the high frequency component of the angular rate. See col. 7, lines 12-30.

11. Claims 14-17 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John E Chapman
Primary Examiner
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